Today In Undersea Warfare History:
1944: USS Seahorse (SS-304): Seahorse sank the tanker, Medan Maru, and damaged 2 other enemy vessels.
1945: USS Moray (SS-300): Moray cleared Saipan, Marianas island, for her 1st war patrol as the senior unit of a coordinated attack group including Sea Poacher (SS-406), Angler (SS-240), Cero (SS-225), Lapon (SS-260), and Carp (SS-338).

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Facts We Can Agree Upon About Design of Ohio Replacement SSBN

Jason Kelly, NavyLive.dodlive.mil, June 26

Over the last five years, the Navy – working with U.S. Strategic Command, the Joint Staff and the Office of the Secretary of Defense – has formally examined various options to replace the Ohio ballistic missile submarines as they retire beginning in 2027. This analysis included a variety of replacement platform options, including designs based on the highly successful Virginia-class attack submarine program and the current Ohio-class ballistic missile submarine. In the end, the Navy elected to pursue a new design that leverages the lessons from the Ohio, the Virginia advances in shipbuilding and improvements in cost-efficiency.

Recently, a variety of writers have speculated that the required survivable deterrence could be achieved more cost effectively with the Virginia-based option or by restarting the Ohio-class SSBN production line. Both of these ideas make sense at face value – which is why they were included among the alternatives assessed – but the devil is in the details. When we examined the particulars, each of these options came up short in both military effectiveness and cost efficiency.

Virginia-based SSBN design with a Trident II D5 missile. An SSBN design based on a Virginia-class attack submarine with a large-diameter missile compartment was rejected due to a wide range of shortfalls. It would:
- Not meet survivability (stealth) requirements due to poor hull streamlining and lack of a drive train able to quietly propel a much larger ship
- Not meet at-sea availability requirements due to longer refit times (since equipment is packed more tightly within the hull, it requires more time to replace, repair and retest)
- Not meet availability requirements due to a longer mid-life overhaul (refueling needed)
- Require a larger number of submarines to meet the same operational requirement
- Reduce the deterrent value needed to protect the country (fewer missiles, warheads at-sea)
- Be more expensive than other alternatives due to extensive redesign of Virginia systems to work with the large missile compartment (for example, a taller sail, larger control surfaces and more robust support systems)
- We would be spending more money (on more ships) to deliver less deterrence (reduced at-sea warhead presence) with less survivability (platforms that are less stealthy).

Virginia-based SSBN design with a smaller missile. Some have encouraged the development of a new, smaller missile to go with a Virginia-based SSBN. This would carry forward many of the shortfalls of a Virginia-based SSBN we just discussed, and add to it a long list of new issues. Developing a new nuclear missile from scratch with an industrial base that last produced a new design more than 20 years ago would be challenging, costly and require extensive testing. We deliberately decided to extend the life of the current missile to decouple and de-risk the complex (and costly) missile development program from the new replacement submarine program. Additionally, a smaller missile means a shorter employment range requiring longer SSBN patrol transits. This would compromise survivability, require more submarines at sea and ultimately weaken our deterrence effectiveness. With significant cost, technical and schedule risks, there is little about this option that is attractive.

Ohio-based SSBN design. Some have argued that we should re-open the Ohio production line and resume building the Ohio design SSBNs. This simply cannot be done because there is no Ohio production line. It has long since been re-tooled and modernized to build state-of-the-art Virginia-class SSNs using computerized designs and modular, automated construction techniques. Is it desirable to redesign the Ohio so that a ship with its legacy performance could be built using the new production facilities? No, since an Ohio-based SSBN would:
- Not provide the required quieting due to Ohio design constraints and use of a propeller instead of a propulsor (which is the standard for virtually all new submarines)
- Require 14 instead of 12 SSBNs by reverting to Ohio class operational availability standards (incidentally creating other issues with the New START treaty limits)
- Suffer from reduced reliability and costs associated with the obsolescence of legacy Ohio system components
- Once again, the end result would necessitate procuring more submarines (14) to provide the required at-sea presence and each of them would be less stealthy and less survivable against foreseeable 21st century threats.

The Right Answer: A new design SSBN that improves on Ohio: What has emerged from the Navy’s exhaustive analysis is an Ohio replacement submarine that starts with the foundation of the proven performance of the Ohio SSBN, its Trident II D5 strategic weapons system and its operating cycle. To this it adds:
Enhanced stealth as necessary to pace emerging threats expected over its service life

Systems commonality with Virginia (pumps, valves, sonars, etc.) wherever possible, enabling cost savings in design, procurement, maintenance and logistics

Modular construction and use of COTS equipment consistent with those used in today’s submarines to reduce the cost of fabrication, maintenance and modernization. Total ownership cost reduction (for example, investing in a life-of-the-ship reactor core enables providing the same at-sea presence with fewer platforms).

Although the Ohio replacement is a “new design,” it is in effect an SSBN that takes the best lessons from 50 years of undersea deterrence, from the Ohio, from the Virginia, from advances in shipbuilding efficiency and maintenance, and from the stern realities of needing to provide survivable nuclear deterrence. The result is a low-risk, cost-effective platform capable of smoothly transitioning from the Ohio and delivering effective 21st century undersea strategic deterrence.

First Sailors Report to PCU Illinois
Lt. j.g. Jeff Prunera, Submarine Group 2 Public Affairs, Navy.mil, June 25

GROTON, Conn. – The first group of Sailors reported to the Pre-Commissioning Unit (PCU) Illinois (SSN 786), a fast attack submarine currently under construction in Groton, Conn.

The commanding officer's arrival June 17 marked a major milestone in the construction phase of the submarine and sets the crew training phase in motion. The ship's sponsor is First Lady Michelle Obama.

Approximately 35 Sailors or one-fourth of the total crew have reported to Illinois over the past few weeks, including Commanding Officer Cmdr. Jess Porter; Engineering Officer Lt. Anthony Wilson; and Master Chief Machinist's Mate (SS) Steve Houk, the engineering department master chief.

"This is my first opportunity to be in command of a boat," said Porter. "It's a fantastic opportunity to be able to set the boat up well for its operational life in building the initial culture on board the submarine. Setting the initial culture is really what sets the boat up for a fantastic operational career."

Illinois is the 13th Virginia-class attack submarine and is under construction at General Dynamics Electric Boat (GDEB) and Huntington Ingalls Industries - Newport News Shipbuilding (HII-NNS).

Porter further reflected on the challenges he and the crew face with a unit under construction compared to an operational boat.

"On a PCU you have a whole bunch of new guys all at once coming to learn a new boat, where on an operational boat you have about one-third new crew members each year." Porter said. "That's the biggest challenge for me is to get those guys up on the step and ready to go to sea to fully operate the warship."

Illinois will be the second U.S. Navy vessel named after the 21st state and is the third Block III Virginia-class submarine.

Illinois is being built under a teaming arrangement between General Dynamics Electric Boat and Newport News Shipbuilding, a division of Huntington Ingalls Industries, in Newport News, Va.

Upon completion, the submarine will displace 7,800 tons of water at a length of 377 feet and a beam of 34 feet. It will be able to dive to depths greater than 800 feet and operate at speeds in excess of 25 knots while submerged.

Initial construction on the submarine began in March 2011 and it is contracted to be delivered in August 2016.

Virginia-class submarines are designed to dominate the world's littoral and deep waters while conducting anti-submarine, anti-surface ship, strike, irregular and mine warfare missions. They also support special operation forces in addition to covert intelligence, surveillance, and reconnaissance.

U.S. 4th Fleet Commander Visits BNS Tapajo at Naval Station Mayport
Petty Officer 1st Class Sean Allen, 4th Fleet Public Affairs, Jacksonville.com, June 26

Rear Admiral Sinclair Harris, Commander U.S. Naval Forces Southern Command/Commander U.S. 4th Fleet visited the Brazilian submarine BNS Tapajo, June 20 at Naval Station Mayport.

Tapajo was at Naval Station Mayport after completing a sustainment exercise (SUSTAINEX) with the USS Truman (CVN-75). The exercise was a scenario based pre-deployment exercise in the Atlantic Ocean that began June 3, and finished June 17.

The 4th Fleet Area of Responsibility (AOR) includes South America, Central America, the Caribbean and surrounding waters. The United States
has vital national interest in the region of the, strengthening ties, promoting friendships and increasing interoperability among the naval forces in the Western Hemisphere. Harris talked about this during his visit.

"The Brazilians are a true partner in our Hemisphere, and in the world, this exercise is a great example of the benefits of working together."

The SUSTAINEX was a pre deployment exercise for Truman battle group. The exercise put the ships together for several coordinated evolutions, including maritime security operations and testing air defense and anti-submarine warfare proficiencies. The exercise also proved very valuable from a command-and-control standpoint. Harris discussed the benefits of having a partner nation participate with the U.S. in these types of evolutions.

PCU John Warner Launches crest
Lt. Cdr. Jennifer Cragg, Commander, Submarine Group 2 Public Affairs, Dolphin-news.com, June 26

NEWPORT NEWS, Va. – The crew of the Pre-Commissioning Unit (PCU) John Warner (SSN 785), which is under construction at Newport News Shipbuilding, a division of Huntington Ingalls Industries, in Newport News, has completed another major milestone, the design for their crest.

Historically and traditionally a ship’s crest combines Navy and submarine history with the vessel’s name. PCU John Warner is named in honor of U.S. Senator John Warner who is the second longest serving U.S. Senator in the history of Virginia. Upon completion of his fifth term in January 2009, he elected to retire.

"We wanted a logo that was bold and represented the incredible capabilities that Virginia-class submarines offer to protect our nation’s freedoms, and recognizes the long and varied career of public service given by Senator Warner," said Commander Dan Caldwell, PCU John Warner’s commanding officer.

The Senator gratefully replied by stating: "The sponsor, my wife, and I are deeply humbled and honored to enlist with the crew and be a part of this great submarine’s future."

The submarine’s crest includes unique and artistic "messages" to represent the submarine’s critical mission and the Senator’s total of 45 years of public service. The crest portrays an eagle, a proud American symbol, which pays tribute to all men and women throughout history who have worn the uniforms of our services. In January 1945, at age 17, Warner enlisted as a seaman in the Navy during World War II. In 1950, he volunteered again for service in the U.S. Marine Corps as a lieutenant during the Korean War period.

The 30 gold feathers in this crest each represents a year that Senator Warner served as a member of the U.S. Senate Armed Services Committee, including his time as its Chairman and ranking member. The 45 silver feathers symbolize his total years of public service, particularly his presidential appointments as Under Secretary and Secretary of the Navy.

"We take great pride that we are honoring an American who has dedicated so much of his career to supporting the men and women in uniform," said Caldwell. "His achievements will provide inspiration for all crews of this submarine, giving them hope and confidence that they can achieve goals they set for themselves."

As with other new-construction submarines, PCU John Warner received assistance on designing the crest from Jim Sikora, a graphics expert assigned to the Visual Information Service Center at Naval Submarine Support Facility located on Naval Submarine Base New London.

"This logo was truly a team effort. Jim gathered ideas from many, including current PCU crew members, and skillfully created a powerful logo," said Caldwell.

PCU John Warner is the 12th submarine of the Virginia class and the second of the block III construction contract. The submarine is under construction at Newport News Shipbuilding, a division of Huntington Ingalls Industries in Newport News, Va., and is being built in partnership with General Dynamics Electric Boat Corporation. Sen. Warner and other members of the Senate Armed Services Committee were instrumental in developing this construction-teaming concept which was supported by the Navy and put into law by Congress.
Cultural and Diversity Fair

Petty Officer 3rd Class Ashley Hedrick, Naval Submarine Base Kings Bay Public Affairs, Jacksonville.com, June 26

In celebration of the 35th Anniversary of Naval Submarine Base Kings Bay, the cities of Camden County — St. Marys, Woodbine and Kingsland — along with the St. Marys Convention & Visitors Bureau, the Camden County Board of Commissioners, the Camden County PSA and the State of Georgia hosted a community activity tent at the Party in the Park May 22 that attracted more than 1,200 guests.

The celebration event was hosted by Kings Bay Morale, Welfare and Recreation and allowed the opportunity for the community to show support and pride in NSB Kings Bay.

“The Naval Submarine Base Kings Bay has always been a great community partner to each of our cities and is an integral part of the successful economic viability and growth of Camden County,” said Angela Wigger, CMP director of tourism, St. Marys Convention & Visitors Bureau. “It was a special day for our military and their families, and we were proud to be a play a part in the day.

“The community tent offered sno-cones, popcorn, a build-a-cupcake station, photo opportunities with various cut outs, city mascots and a dunk tank.

Wigger recognized dignitaries who supported the Dunk-A-Dignitary station — Woodbine Mayor Steve Parrott, Camden County Sheriff Jim Proctor, St. Marys

County, Communities Help Celebrate Kings Bay

Donations made to Dolphin Scholarship, Navy-Marine Relief

Jacksonville.com, June 26

Although senior missile defense leaders continue to insist that “no validated military requirement” exists for a Ground-based Midcourse Defense site on the East Coast, some Senate Republicans are still pushing for one.

In the report accompanying the Senate Armed Services Committee’s fiscal year 2014 defense authorization bill, Ranking Member James Inhofe (R-OK) and Sens. Jeff Sessions (R-AL), Kelly Ayotte (R-NH), Deb Fischer (R-NE) and David Vitter (R-LA) write that the panel's calling on the Defense Department to deploy an X-band radar or a comparable sensor on U.S. soil "is a good first step toward addressing the growing [intercontinental ballistic missile] threat from Iran and, potentially, other countries. But it does not go far enough: we also need to proceed as soon as possible with the deployment of an additional interceptor site on the East Coast to compensate for the loss of the planned third interceptor site in Poland."

The senators, writing in the report's "additional views" section, contend that the Obama administration's proposal to increase the numbers of Ground Based Interceptors in Alaska, "while sound, is not sufficient," adding that the Alaska and California sites had "inherent limitations."

"An additional homeland missile defense site on the East Coast would raise the probability of successfully engaging Iranian threats and preserve GBI inventory in Alaska for North Korean threats," the senators write, citing a study conducted by the National Research Council of the National Academies which stated: "While it is kinematically possible to defend the eastern part of the continental United States (CONUS) against threat ICBMs from the Middle East using GBI sites at Fort Greely and Vandenberg, AFB, an additional GBI site located in northeastern CONUS would be much more effective and reliable and would allow considerably more battle space and firing doctrine options."
But two senior missile defense officers don't think the time is right for an East Coast missile defense site. In a June 10 response to a letter from Senate Armed Services Committee Chairman Carl Levin (D-MI), Missile Defense Agency Director Vice Adm. James Syring and Joint Functional Command for Integrated Missile Defense chief Lt. Gen. Richard Formica write that "no validated military requirement" exists for a Ground-based Midcourse Defense site on the East Coast.

Syring and Formica also say they oppose lawmakers' mandating the deployment of an East Coast site before the completion of an environmental impact statement.

Instead of deploying an East Coast site, "investment in Ballistic Missile Defense System (BMDS) discrimination and sensor capabilities would result in more cost-effective, near-term improvements to homeland missile defense," the senior officers' letter states. "The Department of Defense is evaluating potential sensors enhancements that could be pursued to improve the BMDS kill chain and increase threat discrimination in addition to the evaluation of an additional interceptor site."

"While a potential East Coast site would add operational capability it would also come at significant material development and service sustainment cost," Syring and Formica continue. "This evaluation, and others, will serve to inform decisions on our future BMDS architecture and budget requests."

For their part, Sen. Inhofe and his colleagues contend that "it is hard for the administration to argue it can't afford an East Coast site when the budget of the Missile Defense Agency has seen drastic cuts over the past few years. The President's five-year spending plan for MDA for FY2012-2016 amounted to $43.5 billion; for the five year plan from FY 2014-2018, that amount declined by $5.9 billion to $37.6 billion."

"Moreover, the cancellation of the SM-3 block IIB missile and the Precision Tracking Space System by the President means that MDA avoids some $3.5 billion in spending over the next five years," the senators continue. "Had those savings been returned to the Missile Defense Agency, there would have been ample funding for an East Coast site."

As for the environmental impact studies, the senators write that Congress should not have to await the analyses' conclusion "before determining whether such a deployment is in the interests of the United States."

The Senate Armed Services Committee marked up its version of the fiscal year 2014 defense authorization bill last week. House authorizers completed their mark-up the previous week.

The report accompanying the Republican-led House Armed Services Committee's FY-14 defense policy bill states that the panel "believes such a site is critical to the defense of the United States," and recommends $140.4 million "for site activities related to the development and deployment of an East Coast missile defense site, as follows: $10.2 million for site activities; $25.0 million for site planning and design related to site concept and master plan development for design work; and $35.0 million for ground system development. The committee notes that remaining funds should be spent by the Director, Missile Defense Agency to accelerate site activities."

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Collins Submarines Have Reached Their Performance Targets

*TheAustralian.com, June 27*

ASC is working with our submarine enterprise partners, the navy, the Defence Material Organisation and the Finance Department to achieve international benchmarks for fleet availability and reliability as identified by British specialist John Coles. We are safely doing this by driving productivity initiatives in our production, engineering, planning and supply chain capability.

This year we have reached our performance targets. We have proven that high availability can be generated from the Collins class. Mathematically, it is plain that availability for a class of six submarines will be maximised by moving to a 10-year operating and two-year deep maintenance cycle. HMAS Collins is a core part of that plan.

ASC welcomes scrutiny of the public and the media into our performance. We are proud to lead advanced manufacturing in the naval industry and the defence of our country.

Steve Ludlum, chief executive, ASC, Adelaide, SA

ROBERT Bond's letter (25/6) on our future submarines made interesting reading and reinforces the need for our politicians to consider all options available. It is pointless to expect them to consider nuclear power because for some reason the N-word is a
step too far. But they should look at the German Type-212 submarine operating with the German and Italian navies. Unlike the Collins boats, the Type-212 can stay submerged for two weeks and cover 1500 nautical miles. Its long range is ideal for Australia.

To design and build a new super-Collins from scratch without considering this technology is pure folly and a guaranteed waste of our money.

New Zealand Air force Joins Anti-Submarine Drill in S. Korea

*Agencies, GlobalTimes.cn, June 27*

The New Zealand air force has begun an international submarine-hunting exercise with forces of the Republic of Korea (ROK) in the Sea of Japan, the New Zealand Defense Force (NZDF) announced Thursday.

The P-3K2 aircraft from the Royal New Zealand Air Force (RNZAF) 5 Squadron arrived at Pohang to join the ROK navy's Air Wing 6 last week for Exercise Rokkiwi, a biennial anti-submarine warfare exercise hosted by the South Korean Navy.

They had practiced tactical level cooperation and coordination with ROK aircraft and United States Navy P-3Cs from the 7th Fleet, based in Japan, said a statement from the NZDF.

Wing Commander Aaron Benton said it was the first exercise involving the RNZAF's upgraded P-3K2. "As the South Korean Navy has submarines, this is a fantastic chance to test our anti-submarine warfare capabilities," Benton said in the statement.

"South Korea is also upgrading its P-3 fleet so we are able to create synergies and learn from each other as to what things work and what don't."

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